

**Notice of Allowability**

Application No.

10/676,534

Examiner

Eric F. Winakur

Applicant(s)

DIAB ET AL.

Art Unit

3768

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the preliminary amendment filed 13 September 2006.
2. ☒ The allowed claim(s) is/are 1-27.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date See Continuation Sheet
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 9/30/03; 9/1/05; 12/19/05 (two); 9/21/06.

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1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Grover on 14 November 2006. Applicant agreed to amend the claims to provide internal consistency of claim terms and to correct a typographical error ("unwanted" to "wanted"). The amendments were not intended to limit the scope of the claims, nor were they made to overcome teachings of the prior art.

The application has been amended as follows:

The first sentence of the specification (amended 11 April 2006) was amended to update the status of the parent application, as follows:

This application is a continuation of Application No. 10/062,659 (Atty. Dock. No. MASIMO.7CP1C9), filed on January 30, 2002, (now abandoned), which is a continuation of Application No. 09/195,791 (Atty. Dock. No. MASIMO.7CP1C5), filed November 17, 1998, which is a continuation of Application No. 08/859,837 (Atty. Dock. No. MASIMO.7CP1C1), filed May 16, 1997 (now U.S. Patent No. 6,157,850), which is a continuation of Application No. 08/320,154 (Atty. Dock. No. MASIMO.7CP1), filed October 7, 1994 (now U.S. Patent No. 5,632,272).

In claim 1, line 11, -- shaped -- was inserted before "first";

line 13, -- shaped -- was inserted before "first".

In claim 10, line 10, "unwanted" was changed to -- wanted --;

line 12, "shifted" was changed to -- shaped --;

line 14, -- shaped -- was inserted before "first".

In claim 18, line 7, -- processed -- was inserted before "first".

2. The following is an examiner's statement of reasons for allowance: Applicant cites numerous references disclosing signal processing in oximeter arrangements. Of particular relevance, Kofsky et al. (USPN 4,086,915) teaches an arrangement that includes a shaper demultiplexer (see Figure 1, element 13; and detailed in Figure 4). The arrangement of Kofsky et al. separates out a DC component of an input signal, then subtracts the DC component from the original input signal to provide a remainder corresponding with the AC portion of the signal. The prior art does not teach or suggest, either alone or in combination, a method or apparatus that includes shaping at least some unwanted signal portions away from wanted frequencies and removing at least some of the shaped unwanted signal portions from the shaped signals, in combination with the other claimed steps or elements. Further, the prior art does not teach or suggest a method that includes processing intensity signals with a delta-sigma converter and calculating a physiological characteristic of pulsing blood from the processed intensity signals, in combination with the other claimed steps.

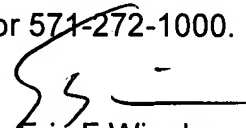
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric F. Winakur whose telephone number is 571/272-4736. The examiner can normally be reached on M-Th, 7:30-5; alternate Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eleni Mantis-Mercader can be reached on 571/272-4740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Eric F Winakur  
Primary Examiner  
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